

## **APLU CoR Research Fellowship Program Overview of Topical Areas Handout**

### **Relevant Terminology for Session 1: The Comprehensive Vice President/Vice Provost/Vice Chancellor for Research**

*This list defines commonly used terms for activities and operations frequently contained within offices of Vice Presidents/Vice Provosts/Vice Chancellors for Research (hereafter referred to as “Research Offices”). The list was assembled for the purpose of the APLU Council on Research (CoR) 2016 Workshop for New and Future Vice Presidents/Vice Chancellors for Research. The intention is to expand on and formalize this resource with feedback from CoR Workshop and Summer Meeting participants.\**

#### **Sponsored Programs/Projects**

A very common unit within Research Offices, the sponsored programs/projects office, facilitates research administration for the institution. Research administration concerns the management of procedural and regulatory work involved in sponsored (funded) research. Sponsored programs activities may be centralized within a Research Office or distributed to colleges or other units (centers or facilities, for example). They may contain a variety of activities, some of which are defined in more detail below, including pre- and post-award administration, funding opportunity searches, electronic research administration, contract negotiation, limited submission processes, etc. Several professional societies provide training relevant to research administration: NCURA, SRA, COGR, FDP, etc. (See Table 1 for more information)

#### **Research Development**

Research Development is a relatively new innovation for a subset of research administration activities that focus on assisting faculty and others with the strategic development of research ideas and directions, as well as proposal development, often in the context of building teams and complex projects. A full (yet not exhaustive) list of research development activities can be found on NORDP’s website (see citations at the end of this document). Institutions have been investing in research development for the last 6-7 years. Similar to Sponsored Programs offices, Research Development offices may be centralized or distributed to colleges and other units. Research Development professionals receive their training from a number of different organizations: NORDP, APLU, AAU, AAAS, COGR, FDP, OSTP, federal funding agencies, etc. (See Table 1 for more information)

#### **Core and/or Shared-Use Facilities**

Core facilities, another common function/activity associated with Research Offices, are centralized, shared research resources that provide access to instruments, technologies, services, as well as expert consultation and other capabilities to scientific and clinical investigators and external audiences. The degree of sharing, and the variety of budget models supporting core facilities, vary. Some institutions (e.g., University of Oregon; University of North Carolina) define requirements for core facilities in very specific ways, particularly as related to health research sponsored by the National Institutes for Health. National and professional association registries exist to advertise particularly specialized core facilities.

Special Case: **Research and/or Innovation Park/Campus** – this may or may not be considered a core or shared-use facility by an institution, but many research institutions have created or are developing/expanding a research-dedicated campus or innovation park. These dedicated campuses/parks vary in their mission, approach, and focus (Wessner, 2009), with most emphasizing economic development, business incubation, public-private partnerships, and other activities that are related to but not wholly within the core of traditional academia. The Association of University Research Parks (AURP: <https://aurp.memberclicks.net/>) has established several Awards of

Excellence, many of which have been received by APLU CoR institutions (<http://www.aurp.net/aurp-awards-of-excellence>).

### **Centers and Institutes**

Most research institutions have a multitude of specialized research centers and institutes that reside outside of traditional departments and colleges. They may have been established as a function of receiving funding (federal, private, or other), negotiated by a new faculty member to the institution or as part of a strategic initiative at the institution. Centers and institutes may have reporting lines to the Research Office, to a college, a department, and/or other unit/office, or combinations thereof. Central funding may support the center or institute financially, including space, personnel, or other commitments. A Research Office may organize information about all of the institution's centers and institutes via the research website (regardless of reporting lines). Some institutions have articulated policies regarding what constitutes a center or institute; others allow faculty great flexibility in the use of these terms (e.g., University of Oklahoma; Penn State University). A VPR/VCR will want to consider institutional culture and resource allocation when determining appropriate support of centers and institutes.

### **Economic Development**

As VPR/VCR positions have been separated from Graduate Dean positions, Economic Development has been added to the range of activities in many Research Offices. Definitions for this activity vary. The University of Illinois, however, provides a compelling example: *all public research universities within the state will engage the government, the private sector, community leaders, and one another to “leverage facilities, equipment, research scientists' and staff's time and services, and other resources for the development and commercialization of new technological and scientific innovations” to “stimulate development of technology-intensive industrial sectors of the Illinois economy.”*

(<http://research.uillinois.edu/economic-development>). In some cases, economic development provides organization within which related activities are included:

***Private Sector Engagement/Public-Private Partnerships*** are the relationships formed between the private sector and public bodies, often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services (European Investment Bank, 2004)

***Technology Transfer/Research Commercialization*** relates to “the handing off of intellectual property rights from the university to the for-profit sector for purposes of commercialization.” (COGR)

***Corporate Relations*** is often a term used in University Development/Advancement offices, i.e., offices charged with raising funds from philanthropic sources. Corporate Relations Development officers work with companies to development partnerships that align company needs with institutional resources. These officers often broker connections between company representatives and university faculty, staff and students. Corporate Relations Development officers may coordinate their contacts with other institutional offices focused on industry/commercialization activities or maintain these contacts (and activities) separate from others. There are opportunities and challenges to coordinating these activities but often the first barrier to overcome is defining shared goals and purposes while not compromising workload, credit or service to the corporate partners.

### **Research Compliance**

Research Compliance is an overarching term for a set activities related to complying with applicable laws and regulations in the following areas:

- Research Conflict of Interest
- Human Research Participant Protection

- Research Integrity
- Research Ethics
- Export Controls
- Restricted Research
- Data Security and Privacy
- Biosafety
- Hazardous Materials
- Radiation Safety
- Animal Care and Use
- Environmental Health and Safety

Most Research Offices house compliance services and resources (one exception: University of Oklahoma). Compliance officers/staff can receive professional development training through NCURA, SRA, PRIM&R, COGR, CSHEMA, SCCE, ARIO, ABSA, SCAW, and a host of webinars and regional meetings.

### **Research Operations/Business Operations**

Not to be confused with Research Administration (i.e., the work of the Sponsored Programs office), Research Operations or Business Operations within a Research Office support the work of the office by coordinating staff, HR, budgets and finance, research space, logistics, and events planning, among other possible responsibilities. This work may be accomplished by a single person within the office or several individuals. The lead operations manager may have different titles, such as Chief of Staff, Chief Operations Officer, etc.

### **Research Communications**

Sometimes included among the staff in Research Offices, as well as in university public affairs/relations offices, Research Communications staff are responsible for communicating research progress, findings, publications, patents, startups, awards, news, events, etc. to both expert audiences as well as the general public. In some Research Offices, Research Communications also includes a research newsletter, annual research report, social media dedicated to research, and the like.

### **Undergraduate Research**

Some Research Offices also house a unit dedicated to undergraduate research (many times, these offices are managed jointly by the chief research and chief academic officers). Resources may be available directly to support student research projects or made available to faculty to engage undergraduates in their research, including in classroom and field settings. Similar to other research-relevant resources, undergraduate research may be centrally focused in the Research Office or distributed into colleges or other domains (e.g., Honors College; University College; etc.). As funding agencies require in some programs integration of education/training with research, undergraduate research offices can provide faculty and other investigators guidance and ideas for innovative integration. Professional development and networking nationally is most likely through the Council on Undergraduate Research (CUR).

### **Graduate Training and Mentoring**

Graduate students are the foundation of the academic research enterprise. If the VPR/VCR is also the dean of the Graduate College, it is likely that responsibilities for support of graduate students will be part of the Research Office (or at least among the responsibilities of the VPR/VCR or Associate). If the VPR/VCR responsibilities are separate from those of a graduate college, then it is likely that there needs to be strong and purposeful ties between the two offices. Supporting graduate student stipends, waiving graduate tuition, playing a role in graduate recruitment, mentoring, and retention, broadening the participation of underrepresented groups of graduate students, professional development, and encouraging

individual development plans (IDPs) are likely among the responsibilities of a VPR/VCR – Graduate Dean. Professional development and networking nationally is most likely through the Council of Graduate Schools (CGS).

### **Postdoctoral Fellow Training and Mentoring**

Individual faculty, research groups, and laboratories likely employ postdoctoral fellows, research scientists/engineers and technical staff. Sources of support for these positions vary (external, internal). In addition to financial support of these positions, training, mentoring, and professional development are also desired resources. Some institutions host a postdoc office within the Research Office (e.g., University of Texas at Austin), within the Graduate School (e.g., University of Iowa), or other office, such as the Provost's office (e.g., University of Florida). Of particular importance, beyond support and resources, is accurately tracking “postdoctoral appointees and other non-faculty research staff with doctorates” for the purposes of the Carnegie Classifications (<http://carnegieclassifications.iu.edu/methodology/basic.php>). A wide variety of resources in support of postdocs can be found via the National Postdoc Association (NPA; See Table 1 for more detail).

### **Internal Funding**

Some Research Offices may distribute funding within the institution to seed new projects, provide bridge funding, establish large initiatives, support faculty fellows, etc. The distribution of internal funding may or may not be competitive. In the case of competitive distributions of internal research funds, faculty often prefer the evaluation of their peers as opposed to top-down decisions from the VPR/VCR without recommendations from others. Distribution of internal research funds may be done centrally or through colleges/departments or a blending of the two approaches. Evaluation of funding progress and impact is recommended, especially if internal funds are thought to be “state provided funds”.

Special Case: *Faculty Incentives and Rewards* – recognizing faculty and other investigators for their success and accomplishments is often a way to provide resources when a salary increase or other support is not available. Many Research Offices have incentive and reward programs but it is important to attend to the institutional culture and understand what serves as an incentive and what serves as a reward.

Extra-Special Case: *Facilities & Administrative Costs (AKA: Indirect Costs; Overhead)* – the budgets of many Research Offices are funded by institutional funds equal to (or a portion of) the amount of F&A received from grants and contracts. These funds, in turn, may be distributed to faculty and academic units, perhaps to serve as incentives and rewards for research. APLU's council on Research is the perfect community within which to share effective practices for use of Research Office funding. The Council on Governmental Relations (COGR) has an excellent resource on the Finances of Research Universities (COGR, 2014).

### **Research Data and Analytics**

VPRs/VCRs may be held accountable for research performance at their institutions by other university leaders. Research performance metrics may be uniformly defined (e.g., annual research expenditures and annual new awards) or more flexible (e.g., significant increase in the number of faculty engaged in funded research over a 5-year period). Most Research Offices do not have a dedicated staff member for research data analysis and analytics (this may be part of Institutional Research and Reporting, Research Communications staff or individuals responsible for an annual research report). However, many VPRs/VCRs within APLU CoR have creative metrics they have assembled (and are happy to share) to reflect growth and progress in research beyond research expenditures and new awards.

## **Research Information Technology (IT)**

Not many Research Offices have a dedicated staff member to support IT needs of the Research Office and/or support Research data and IT needs across the institution. In some cases, an IT staff member may be provided by the university's Information Technology office (direct report to IT, on loan to the Research Office). In some cases, an IT staff member may be a resource for centers and institutions and/or core facilities. If the Research Office houses other units that rely on electronic communication (video conferencing, for example), electronic research administration, and a significant online and social media presence, dedicated IT support to the Research Office is an effective practice.

## **Libraries**

A research partnership with the library system at an institution is an effective practice that may not appear obvious to others external to the institution. Libraries have always supported scholarly work performed at institutions, and many libraries are building collaborative spaces and resources and are engaged in research topics such as open data and data management plans. Defining strategic and transparent partnerships with institutional libraries can serve to expand scholarly resources and support for research across all disciplines.

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## **Other Resources/References Cited:**

Research Development:

Research Development Activities:

[http://www.nordp.org/index.php?option=com\\_content&view=article&id=49&Itemid=107](http://www.nordp.org/index.php?option=com_content&view=article&id=49&Itemid=107).

Core Facilities Resources:

University of Oregon: <http://rcf.uoregon.edu/sites/default/files/Guidance-CoreFacilities.pdf>

University of North Carolina School of Medicine: <https://www.med.unc.edu/corefacilities/resources/core-facilities-policy-and-guidelines-documentation>

Centers and Institutes:

University of Oklahoma: <https://vpr-norman.ou.edu/centers-institutes>

Penn State: <https://guru.psu.edu/policies/rag05.html>

Public/Private Partnerships: [http://www.eib.org/attachments/thematic/eib\\_ppp\\_en.pdf](http://www.eib.org/attachments/thematic/eib_ppp_en.pdf)

Postdoc Offices:

University of Texas at Austin: <https://research.utexas.edu/postdoc/>

University of Iowa: <https://www.grad.uiowa.edu/postdoc/home>

University of Florida: <http://postdoc.aa.ufl.edu/>

Best Practices for University Research Parks:

Wessner, C.W. (Ed.; 2009). Understanding Research, Science, and Technology Parks: Global Best Practices. Washington, DC: NRC. <http://www.nap.edu/read/12546/chapter/1>

COGR Finances of Research Universities:

[http://cogr.edu/COGR/files/ccLibraryFiles/Filename/000000000267/Finances%20of%20Research%20Universities\\_June%202014.pdf](http://cogr.edu/COGR/files/ccLibraryFiles/Filename/000000000267/Finances%20of%20Research%20Universities_June%202014.pdf)

Table 1: Professional Societies and Organizations for Professional Development Related to Research

Acronym	Professional Organization	Website
AAAS	American Association for the Advancement of Science	<a href="http://www.aaas.org/">http://www.aaas.org/</a>
AAU	Association of American Universities	<a href="http://www.aau.edu/">http://www.aau.edu/</a>
ABSA	American Biological Safety Association	<a href="http://www.absa.org/">http://www.absa.org/</a>
APLU	Association of Public & Land-grant Universities	<a href="http://www.aplu.org/">http://www.aplu.org/</a>
ARIO	Association of Research Integrity Officers	<a href="https://www.mskcc.org/ario2016">https://www.mskcc.org/ario2016</a>
AUTM	Association of University Technology Managers	<a href="http://www.autm.net/">http://www.autm.net/</a>
BTAA	Big Ten Academic Alliance (formerly the Committee on Institutional Cooperation; CIC)	<a href="https://www.btaa.org/home">https://www.btaa.org/home</a>
CGA	Council on Governmental Affairs (APLU)	<a href="http://www.aplu.org/members/councils/governmental-affairs/about-cga/">http://www.aplu.org/members/councils/governmental-affairs/about-cga/</a>
CGS	Council on Graduate Schools	<a href="http://cgsnet.org/">http://cgsnet.org/</a>
CICEP	Commission on Innovation, Competitiveness, and Economic Prosperity (APLU)	<a href="http://www.aplu.org/members/commissions/innovation-competitiveness-and-economic-prosperity/">http://www.aplu.org/members/commissions/innovation-competitiveness-and-economic-prosperity/</a>
COGR	Council on Government Relations	<a href="http://www.cogr.edu/">http://www.cogr.edu/</a>
CoR	Council on Research (APLU)	<a href="http://www.aplu.org/members/councils/research/">http://www.aplu.org/members/councils/research/</a>
CSHEMA	Campus Safety Health and Environmental Management Association	<a href="http://www.cshema.org/">http://www.cshema.org/</a>
CUR	Council on Undergraduate Research	<a href="http://www.cur.org/">http://www.cur.org/</a>
FDP	Federal Demonstration Partnership	<a href="http://sites.nationalacademies.org/pga/fdp/index.htm">http://sites.nationalacademies.org/pga/fdp/index.htm</a>
GUIRR	Government – University – Industry Research Roundtable	<a href="http://sites.nationalacademies.org/pga/guirr/index.htm">http://sites.nationalacademies.org/pga/guirr/index.htm</a>
NACRO	Network of Academic Corporate Relations Officers	<a href="http://nacrocon.org">http://nacrocon.org</a>
NAIM	National Association of IRB Managers	<a href="http://www.naim.org/">http://www.naim.org/</a>
NCURA	National Council of University Research Administrators	<a href="http://www.ncura.edu/">http://www.ncura.edu/</a>
NORDP	National Organization of Research Development Professionals	<a href="http://nordp.org">http://nordp.org</a>
NPA	National Postdoctoral Association	<a href="http://www.nationalpostdoc.org/">http://www.nationalpostdoc.org/</a>
OSTP	Office of Science and Technology Policy	<a href="https://www.whitehouse.gov/administration/eop/ostp">https://www.whitehouse.gov/administration/eop/ostp</a>
PRIM&R	Public Responsibility in Medicine and Research	<a href="http://www.primr.org/">http://www.primr.org/</a>
SCAW	Scientists Center for Animal Welfare	<a href="http://www.scaw.com/">http://www.scaw.com/</a>
SCCE	Society of Corporate Compliance and Ethics	<a href="http://www.corporatecompliance.org/">http://www.corporatecompliance.org/</a>
SHARE	Open Data Initiative (SHARE is not an acronym)	<a href="http://www.share-research.org/">http://www.share-research.org/</a>
SRA	Society of Research Administrators International	<a href="http://srainternational.org/">http://srainternational.org/</a>
SURA	Southeastern Universities Research Association	<a href="http://www6.sura.org/">http://www6.sura.org/</a>
UIDP	University Industry Demonstration Partnership	<a href="https://www.uidp.org">https://www.uidp.org</a>